

In the Claims

1. (Currently amended) A method for supporting data communications comprising:

receiving a device identifier from a mobile unit;

determining a home agent for the mobile unit based on the device identifier;

requesting subscription information from the home agent in advance of the mobile unit roaming into a foreign network associated with a foreign agent, wherein the subscription information comprises an internet protocol (IP) address for the mobile unit; and

initiating registration of the foreign agent ~~a foreign agent~~ with the home agent, wherein the registration permits the foreign agent to receive redirect packets from the home agent, the redirect packets containing information for communication to the mobile unit.

2. (Original) The method of Claim 1, further comprising receiving the redirect packets in advance of establishing a data-link layer connection with the mobile unit to support a substantially seamless handoff of a data communications session of the mobile unit.

3. (Original) The method of Claim 1, wherein the IP address of the mobile unit specifies a network identifier identical to that specified by an IP address of the home agent.

4. (Original) The method of Claim 1, wherein the registration comprises communication of a registration request to the home agent, the registration request comprising the IP address of the mobile unit and an IP address of the foreign agent.

5. (Original) The method of Claim 4, wherein the redirect packets are addressed to the IP address of the foreign agent and each of the redirect packets comprise, as a payload, a data packet addressed to the IP address of the mobile unit.

6. (Original) The method of Claim 5, further comprising receiving the redirect packets, extracting the data packets from the redirect packets, and communicating the data packets to the mobile unit.

7. **(Original)** The method of Claim 1, wherein the device identifier is at least one of a mobile identification number (MIN) assigned to the mobile unit and an equipment serial number (ESN) assigned to the mobile unit.

8. **(Currently amended)** A communications system comprising:

a mobile unit having an internet protocol (IP) address corresponding to a home network;

a home agent in the home network, the home agent operable to register foreign agents to receive redirect packets containing information for delivery to the mobile unit and to communicate the redirect packets to registered foreign agents;

a base transceiver station operable to receive a device identifier from the mobile unit, to identify the home agent based on the device identifier, to request subscription information from the home agent, the subscription information comprising the IP address of the mobile unit, and to initiate registration of a foreign agent with the home agent based on the subscription information; and

the foreign agent operable to register with the home agent in advance of the mobile unit roaming into a foreign network associated with a foreign agent, to receive the redirect packets, and to communicate information from the redirect packets to the mobile unit using the base transceiver station.

9. **(Original)** The communications system of Claim 8, wherein the foreign agent registers with the home agent in advance of establishment of a data-link layer connection between the mobile unit and the base transceiver station to support a substantially seamless handoff of a data communications session of the mobile unit to the base transceiver station.

10. **(Original)** The communications system of Claim 8, wherein the foreign agent registers with the home agent by communicating a request to the home agent, the request comprising the IP address of the mobile unit and an IP address of the foreign agent.

11. **(Original)** The communications system of Claim 10, wherein the redirect packets are addressed to the IP address of the foreign agent and each of the redirect packets comprise, as a payload, a data packet addressed to the IP address of the mobile unit.

12. **(Original)** The communications system of Claim 8, wherein the home agent receives data packets for delivery to the mobile unit and encapsulates the data packets within the redirect packets.

13. **(Original)** The communications system of Claim 12, wherein the foreign agent is further operable to receive the redirect packets, to extract the data packets from the redirect packets, and to communicate the data packets to the base transceiver station for transmission to the mobile unit.

14. **(Currently amended)** A base transceiver station comprising:
a wireless interface operable to receive a device identifier from a mobile unit;
a processor operable to determine a home agent for the mobile unit based on the device identifier, to request subscription information from the home agent in advance of the mobile unit roaming into a foreign network associated with a foreign agent, wherein the subscription information comprises an internet protocol (IP) address for the mobile unit, and to initiate registration of the foreign agent ~~a foreign agent~~ with the home agent, wherein the registration permits the foreign agent to receive redirect packets from the home agent, the redirect packets containing information for communication to the mobile unit.

15. **(Original)** The base transceiver station of Claim 14, further comprising a network interface operable to receive the redirect packets in advance of establishing a data-link layer connection with the mobile unit to support a substantially seamless handoff of a data communications session of the mobile unit.

16. **(Original)** The base transceiver station of Claim 14, wherein the IP address of the mobile unit specifies a network identifier identical to that specified by an IP address of the home agent.

17. **(Original)** The base transceiver station of Claim 14, wherein the registration comprises communication of a registration request to the home agent, the registration request comprising the IP address of the mobile unit and an IP address of the foreign agent.

18. **(Original)** The base transceiver station of Claim 17, wherein the redirect packets are addressed to the IP address of the foreign agent and each of the redirect packets comprise, as a payload, a data packet addressed to the IP address of the mobile unit.

19. **(Original)** The base transceiver station of Claim 18, further comprising a network interface operable to receive the redirect packets; and wherein the processor is further operable to extract the data packets from the redirect packets and to communicate the data packets to the mobile unit using the wireless interface.

20. **(Original)** The base transceiver station of Claim 14, wherein the device identifier is at least one of a mobile identification number (MIN) assigned to the mobile unit and an equipment serial number (ESN) assigned to the mobile unit.

21. (Currently amended) A base transceiver station comprising:
means for receiving a device identifier from a mobile unit;
means for determining a home agent for the mobile unit based on the device identifier;
means for requesting subscription information from the home agent in advance of the mobile unit roaming into a foreign network associated with a foreign agent, wherein the subscription information comprises an internet protocol (IP) address for the mobile unit; and
means for initiating registration of the foreign agent ~~a foreign agent~~ with the home agent, wherein the registration permits the foreign agent to receive redirect packets from the home agent, the redirect packets containing information for communication to the mobile unit.

22. (Original) The base transceiver station of Claim 21, further comprising means for receiving the redirect packets in advance of establishing a data-link layer connection with the mobile unit to support a substantially seamless handoff of a data communications session of the mobile unit.

23. (Original) The base transceiver station of Claim 21, further comprising means for communicating a registration request to the home agent, the registration request comprising the IP address of the mobile unit and an IP address of the foreign agent.

24. (Original) The base transceiver station of Claim 23, wherein the redirect packets are addressed to the IP address of the foreign agent and each of the redirect packets comprise, as a payload, a data packet addressed to the IP address of the mobile unit.

25. (Original) The base transceiver station of Claim 24, further comprising means for receiving the redirect packets, means for extracting the data packets from the redirect packets, and means for communicating the data packets to the mobile unit.

26. (Currently amended) Logic for supporting data communications, the logic encoded in media and operable to:

receive a device identifier from a mobile unit;

determine a home agent for the mobile unit based on the device identifier;

request subscription information from the home agent in advance of the mobile unit roaming into a foreign network associated with a foreign agent, wherein the subscription information comprises an internet protocol (IP) address for the mobile unit; and

initiate registration of the foreign agent ~~a foreign agent~~ with the home agent, wherein the registration permits the foreign agent to receive redirect packets from the home agent, the redirect packets containing information for communication to the mobile unit.

27. (Original) The logic of Claim 26, further operable to receive the redirect packets in advance of establishing a data-link layer connection with the mobile unit to support a substantially seamless handoff of a data communications session of the mobile unit.

28. (Original) The logic of Claim 26, further operable to communicate a registration request to the home agent, the registration request comprising the IP address of the mobile unit and an IP address of the foreign agent.

29. (Original) The logic of Claim 28, wherein the redirect packets are addressed to the IP address of the foreign agent and each of the redirect packets comprise, as a payload, a data packet addressed to the IP address of the mobile unit.

30. (Original) The logic of Claim 29, further operable to receive the redirect packets, to extract the data packets from the redirect packets, and to communicate the data packets to the mobile unit.